

**Academic Preparation and Quantitative Reasoning  
Steering Committee  
12-2-20**

**In Attendance**

Lande Ajose, Marty Alvarado, Elisha Smith Arrillaga, Mary Barlow, Alma Barreras (for Tony Thurmond), Loren Blanchard (chair), Robert Collins, Nathan Evans, Wenda Fong, Alondra Esquivel Garcia, Lillian Kimbell (observing), Marquita Grenot-Scheyer, Romey Sabalius, Ilene Straus and Edward Sullivan

Welcome and CSU Update

Dr. Blanchard welcomed participants to the second meeting of the Academic Preparation and Quantitative Reasoning Steering Committee. He encouraged everyone's participation and emphasized the importance of quantitative reasoning to the CSU's overall commitment to student success. Student success means ensuring students are able to master the knowledge and skills to empower them not only to earn a degree, but a degree of value. With a degree of value, students are ready to either enter the work force, graduate/professional school or further their journey in self-discovery. At the heart of all of this is academic preparation. Dr. Blanchard reiterated the notion of the continuum of education and the collective responsibility of educators and leaders to ensure students are prepared before they reach the CSU so they may take full advantage of their higher education experience.

**Graduation Initiative 2025**

Dr. Blanchard provided an update on the CSU's Graduation Initiative 2025 program, including how the CSU has addressed student needs during the COVID-19 pandemic. The program's goals are: to increase graduation rates by the year 2025 for first time and transfer student; eliminate equity gaps; and ensure graduates are ready to help address the workforce shortage of 1.1 million employees (pre-pandemic) projected in California by 2030.

- As a result of the move to virtual learning, more CSU faculty took advantage of professional development and training to ensure quality would not be compromised: 70,000 faculty engaged in multiple training sessions totaling 250,000 hours of professional development. This instruction not only included best practices, but how to make sure equity was at the forefront of their work.
- CSU campuses coordinated assistance in bridging the digital divide for many students. The CSU distributed more than 21,000 laptops and 10,000 mobile Wi-Fi hot spots representing a \$22.5 million investment. Some campuses turned parking structures into Wi-Fi zones or offered internet connection to local students.
- This past May the CSU graduated nearly 110,000 students, which is 230,000 more than when the Graduation Initiative began in 2015.

- The 4-year graduation rate systemwide is now 31 percent – the highest rate in the history of the CSU and represents steady progress towards the 2025 goal of a 40 percent graduation rate for first-time students.
- The 6-year graduation rate is 62 percent, and several campuses are already meeting or have surpassed the systemwide goal of 70 percent.
- For transfer students, the 2-year graduation rate is 43 percent, also the highest ever for the CSU. The 4-year transfer student graduation rate is 79 percent.
- The graduation equity gap for Pell eligible students narrowed by one percentage point this year, and now stands at 9.2 percentage points. The gap for students who identify as African American, Native American or Latinx also decreased slightly to 10.5 percentage points.
- The CSU won't rest until these goals are met. As the largest and most diverse system, we have a responsibility to lead the nation in this area. We all have a role to play – including in increasing quantitative reasoning courses and teacher capacity. It takes all of us working together to help create a path forward for our students.

### Implementation Plan Updates

Dr. Grenot-Scheyer provided an update regarding the work of the Center for the Advancement of Instruction Quantitative Reasoning (CAIQR) to implement a capacity building plan to address the proposed CSU admission requirement for an additional year of quantitative reasoning. Since the last steering committee meeting, Center staff in collaboration with campus partners, have focused on building capacity in two primary areas: course capacity and teacher capacity. This includes work in the following areas:

#### **California Mathematics Readiness Challenge Initiative (CMRCI)**

Since 2016, CSU faculty and staff have been working with the California Department of Education and PK-12 and community college partners to develop “bridge” or transitional mathematics courses from high school to college through the CMRCI. These partnerships were a direct result of a \$10 million-dollar legislative investment in improving the transition between high school and college in 2017.

- **San Diego** (Discrete Mathematics Pre-Collegiate and Discrete Mathematics & Problem Solving)  
From their original course DMPC, the team now has completed the student curriculum for the Discrete Mathematics & Problem Solving (DMPS, 3<sup>rd</sup> year area “c” course) in August 2020 and is now working on the accompanying teacher materials. During fall 2020, the team has met with four districts and high schools to recruit potential trainees for both DMPC and DMPS for summer 2021 training.
- **Sacramento** (Transition to Quantitative Reasoning and Quantitative Reasoning with Advanced Mathematical Topics)

The team is in the process of providing professional learning online. The first cohort is scheduled to begin December 2020. To date, QRAT/TQR has trained mathematics teachers in 30 districts.

- **Northridge** (Transition to College Mathematics and Statistics)  
The project has recently hired an instructional designer to help with the development of an online platform. The course is now offered in four districts which are high-need: Los Angeles, Paramount, Compton and El Monte.
- **Pomona** (Mathematical Reasoning with Connections)  
In summer 2020, the program trained an additional 26 high school and community college mathematics teachers who will have continued follow-up sessions through spring 2021. To date, the program has trained high school mathematics teachers from at least 30 districts and is currently planning for the new cohort of trainees that will begin during summer 2021.

A CSET III Pilot is offered to holders of the Foundational Level Mathematics credential. These are beginning CSET workshops to help participants develop sufficient content fluency to engage in the MRWC materials. Those who participated in this program will also have enough background to take the Subtest III of CSET Mathematics.

The MRWC Preservice Project will provide materials for preservice capstone and methods courses. These modules will strengthen the mathematics preparation for pre-service teachers.

The MRWC Trainer-Of-Trainers (TOT) workshops focus on revamping the MRWC workshops and editing the MRWC Teacher Guide and games for online professional development learning and K-12 instruction. By increasing their capacity, the team is better prepared for the expansion of the project across the state.

### **Supplementary Authorization in Computer Science**

Four CSU campuses have developed Supplementary Authorization in Computer Science programs including Dominguez Hills, Los Angeles, Sacramento, and San Francisco.

- **Dominguez Hills**  
The team has developed a certificate program that will consist of three upper division courses for a total of 10 credits to be offered in three consecutive semesters/sessions, starting summer 2020 or fall 2020 (a one-year program – two semesters and one summer session).
- **Los Angeles**  
During the remainder of 2020, the Los Angeles team developed an online program of five courses for in-service teachers to earn this supplementary authorization. The completion of the program will also make these teachers eligible to continue with the MA program (Educational Technology).

- Sacramento  
During summer and fall 2020 the Sacramento team developed a program for in-service teachers that included the *Introductory Supplementary Authorization* and coursework for the *Specific Supplementary Authorization* and there will be applications of data science and cyber security included in the coursework. The program will be fully online and offered through the College of Continuing Education of California State University, Sacramento.
- San Francisco  
The team converted their Summer 2020 Institute from the usual live delivery format to an online, synchronous format.

### **MSTI Directors and EAP Coordinators**

During summer 2020, the MSTI and the MSTI-STEM Challenge applications were revised by Center staff to include an increase in the number of mathematics and science credentials as well as Supplementary Authorization and Subject Matter Authorization. The awards to the campuses were distributed in October. Additionally, Center staff have begun outreach to the list of 29 school districts identified by the Chancellor's Office with the highest number of fall 2020 freshman enrollees who would not have fulfilled the additional year of QR despite having course(s) available.

### **Steering Committee Discussion**

*Question: You mention the 29 districts with the greatest need and the professional development that you're developing. Do you have an idea of how much this will affect those districts or is it too early to predict?*

Answer: It's a complicated question, and part of it will be addressed in the communications outreach plan which encompasses not only these 29 districts but all districts in California. We are attempting to build course and teacher capacity at a number of levels. CMRCI courses are having impact, allowing teachers to teach additional courses on their high school campuses. We don't yet have a number, but we can report on an annual basis number of math and science teachers. New supplemental authorizations add on to an existing credential. Not only can someone teach math but also computer science, for example. The role of an external evaluator is going to help us look at impact as well.

*Question: For those districts that aren't included in the 29, what kind of accountability system or feedback loop do we have with the districts and county offices of education to connect and ensure they are aware and availing themselves of resources?*

Answer: We appreciate your advice and assistance with that as well as our COE colleagues. We sent a letter out the week before Thanksgiving and we will follow up. Our hope is they forward the letter to an assistant superintendent of curriculum and join that conversation of how we can help. Some projects reported that when they reached out to

district partners, the response was they were not interested. We look to this group as to how we can encourage greater participation.

Committee Member: It's an ideal time to take advantage of professional development because of COVID-19. Many of us have more time for professional development. Second, working through CSEESA county office group that regularly meets every week with CVE, CCE, state board of education – this would be an opportunity to reach out through that group. I can share other ideas offline.

*Question: Who told you they weren't interested?*

Answer: I don't have the list of districts. Five projects center staff interacted with faculty and directors, and several reported this when they reached out to district partners. There are a lot of reasons for that, and it doesn't mean we won't keep trying. Project faculty and education deans have regular interaction; we are just getting outreach started and we are not discouraged at this time.

Committee Member: Part of the challenge is trying to balance getting teachers proficient with technology and then switching the online management system and teaching through a new pedagogy including social and emotional learning and parent and student needs. Those competing issues might be part of that discussion. What is important as leaders is that we are not just managing the current crisis, but thinking about the future and the impact on students years from now. We can use this opportunity to get better. It's how we frame it – not to make it another big piece to add to their plate, but show them how it can be done.

#### Update on Selection of External Research Firm

Dr. Minor reported on the successful completion of a contract with a third-party research and assessment partner as required by the CSU Board of Trustees. He shared key criteria for the partner were capacity to complete the project and a firm which was free of conflict or prior involvement in the issue politically or otherwise. This was an open bidding process and the partner selected is MDRC.

The scope of work includes:

- An independent analysis of the planned implementation and potential impact of the CSU's proposed quantitative reasoning requirement.
- An independent analysis of any potential disparate impacts of the admission policy change on CSU-bound California high school students.
- An independent analysis of the potential admission policy change on CSU students' success in college for all students and particular subgroups of students.

- An independent qualitative assessment of the implementation needs for the proposed change to be successful and equitable.

The CSU expects a preliminary report by March 2021 with a final report in 2022. Part of what complicated the selection was the need for an agreement provision to allow accessing data from the California Department of Education, and we're happy to report that MDRC can work directly with the CDE.

### **Steering Committee Discussion**

*Question: How much does MDRC get (paid) and why not choose a state entity that might be free? Could we not draw on the expertise of CSU faculty? We have researchers who can be trusted to be neutral.*

Answer: Great questions. With respect to PPIC and other firms, this was an open process. Any research firm in the country could have submitted a bid for this project. There was criteria, including the ability to meet the timeline as outlined by the board which includes a progress report by March and final a year from now. That was not workable for some firms. I don't believe PPDC would have come to us for free. The cost of the work is competitive.

Another commitment is to be free of any potential conflicts. You alluded to that with faculty doing the work, but clearly how this played out with some individuals and firms clearly taking a position prior to the bidding process we wanted to be careful about that. MDRC is independent of the CSU and can talk to school leaders. The point about faculty is a great point, but we didn't think it appropriate or met the criteria of free of conflict of interest for this particular project.

*Question: I worked for MDRC and it's a very reputable firm and very vigorous in their approach. In terms of a neutral arbitrator and objectivity, you have passed that threshold and I commend you. Is the PI out of Oakland or New York? And because of length of time it took to execute the contract, there's a very short period of time to turn around in writing. What will you know by March and what won't you? Seems like some compromises will need to be made by March, what will they be?*

Answer: Two excellent questions. We can't yet confirm who will formally serve as principals. Point well taken on timeline for the project: it is something we thought a lot about but given so much work is analyzing data we do think we'll have something to say for the March board meeting. The MDRC work by March will be descriptive "a-g" lists and some CSU admissions data. The connection with the CDE still requires a data sharing agreement. The good news is they have an active agreement with CDE currently so the legal framework should not be a new thing for either entities. The work on data sets should be fairly quick. Their analytic work on the class of 2019 will probably occur after March.

Question: *I'm pleased to see MDRC is the selection. I am interested to learn more about the PI. It is key for them to understand context and implications of the study. I'd like to understand more how COVID is having on data and impact on the timeline or data.*

Answer: As it relates to COVID, eligibility and course availability is something we have to take into account. In the short term, we do not see a disruption to answer the questions we agreed to pursue. Something that we'll need to consider is course taking patterns for high school students during this term. The ask will circle around fall 2019 class, not fall 2020 class that just entered. Their goal is a population greater than the population who applied to the CSU. That is something that would be a preference; whether or not that occurs will be determined in the negotiation between MDRC and CDE. We will be supplying them with our applications.

Question: *Who determines the universe?*

Answer: It is beyond our (CSU) control. The bigger population is between the CDE and MDRC.

### Discussion on External Outreach and Communication to K-12 Partners

Nathan Evans facilitated a conversation regarding engaging PK-12 districts in capacity-building particularly in three key areas:

- Curricular/instructional capacity
- In-school course taking behaviors
- Student/facility outreach

Dr. Grenot-Scheyer spoke on curriculum and instructional capacity. We'd like to start a conversation now and return to it in future meetings. Before we start, I want to echo the sentiments of considering new opportunities in our current situation. What unique opportunities are coming forward to help with direct engagement? Some examples include Chico's outreach to focus on schools with lowest "a-g" completion or Pomona's Caminos program for elementary schools and its credit recovery for high school seniors. Long Beach has a segmented social media campaign for parents, students and counselors. What should we consider as we begin to build out our communications plan and leverage the creative efforts we've seen during the COVID era?

### **Steering Committee Discussion**

Comment: *I'm so glad to see the focus on course taking behavior as well as course availability. Courses can be there, but if kids aren't taking them for whatever reason, we're losing an opportunity to get them to the CSU. And focusing on student and parent outreach is important because they should be aware what is needed to go to college.*

Question: *We know this group has far reaching connections. I'm sure you've heard other creative outreach and engagement efforts?*

Question: *I'm wondering about extending school and counselor outreach in this area? I had a conversation for K-12 and community college teachers and colleagues and sometimes they don't get the information. They are on the front line to get students to take courses. How can we engage with teachers about types of courses students should consider? I'm wondering if that's captured in the plan or could be added?*

Answer: There are traditional platforms the CSU has used and continues to use, such as annual counselor fairs, that have transitioned online. Individual campuses and departments engage with counselor outreach, and the CSU has a systemwide counselor newsletter. We're also looking at other opportunities with national and regional professional organizations. We welcome ideas from you and others as that group is a key audience.

We also work closely with our EAP coordinators. They are an important information resource.

Question: *I have two thoughts: community partners are always important to communicate effectively with parents. Second, when the UC was considering a science requirement, there was a study to show disparate impact. If that is the case here, how does that impact this implementation plan?*

Answer: I think community partners are very much a part of our multi-year communications plan. A number of folks in Dr. Minor's department are key conduits with those groups. When we talk about academic preparation and creating a college-going culture, the more layers the better: whether through faith-based and community organizations or embedded in our campuses. On the second question, I don't think this is a new message regarding academic preparation or building capacity in quantitative reasoning. We are focusing on students taking senior level courses. I've seen already references in district requirements.

Question: *During our board meetings, a lot of public comments on QR were from community groups. Have you reached out and asked them for feedback?*

Answer: We do have ongoing outreach, but some of it has been disrupted during the pandemic. Following the January board meeting, we met with a number of statewide organizations in Sacramento. Through existing networks, those conversations have continued, but we need to be more intentional as we build out a communications plan.

### Concluding Comments and Next Steps

The CSU will continue to provide regular touch points with the steering committee. We think it is important to keep you apprised of our work. There will be a progress report at the March 2021 board of trustees meeting, followed by the next meeting of this committee afterwards and a second meeting in early fall. We welcome your feedback and invite you to reach out with any questions in the interim.

Dr. Blanchard reiterated an invitation for the steering committee to the March 2021 board meeting conducted over Zoom. He expressed his gratitude for the committee's expertise and time as well as willingness to participate in this area. He concluded by stating the committee's work is designed to improve educational outcomes, particularly for the underserved population of students.